CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: July 16, 2020

TO: Jennifer Jerich – SCR/Horicon

FROM: Sarah Luck – SCR/Fitchburg

SUBJECT: Water Quality-Based Effluent Limitations for the Rushing Waters Fisheries, Inc.
WPDES Permit No. WI-0002488-10

This is in response to your request for an evaluation of the need for water quality-based effluent limitations (WQBELs) using Chapters NR 102, 104, 105, 106, 207, 210, 212, and 217 of the Wisconsin Administrative Code (where applicable), for the discharge from Rushing Waters Fisheries, Inc. in Jefferson County. This industry discharges to the Unnamed Tributary to Spring Creek, located in the Scuppernong River Watershed (LR-15) of the Lower Rock River Basin. This discharge is included in the Rock River TMDL as approved by EPA. The evaluation of the permit recommendations is discussed in more detail in the attached report.

Based on our review, the following recommendations are made on a chemical-specific basis at Outfall 001:

Parameter	Daily Maximum	Daily Minimum	Weekly Average	Monthly Average	Six-Month Average	Footnotes
Flow Rate						1,2
BOD_5						1,2
TSS						1,3
pH						1,2
Ammonia Nitrogen						1,2
Phosphorus MDV Limit Final WQBEL				 0.65 mg/L 0.225 mg/L	 0.075 mg/L	3,4
Temperature						5

Footnotes:

1. No changes from the current permit.
2. Monitoring only.
3. Additional phosphorus and TSS mass limitations are required in accordance with the wasteload allocations specified in the Rock River TMDL.

Month	**Monthly Ave TSS Effluent Limit (lbs/day)**	**Daily Max TSS Effluent Limit (lbs/day)**	**Monthly Ave Total P Effluent Limit (lbs/day)**
Jan	167	400	1.94
Feb	184	440	2.09
March	167	400	2.00
April	151	360	2.18
May	126	300	2.22
June	109	260	2.33
July	92	220	2.02
Aug	143	340	1.90
Sept	176	420	1.73
Oct	167	400	1.74
Nov	176	420	1.80
Dec	167	400	1.87

4. Under the phosphorus MDV, a limit of 0.65 mg/L should be effective upon permit reissuance. The final WQBELs remain at 0.225 mg/L as a monthly average and 0.075 mg/L as a six-month average.
5. Temperature monitoring is recommended at discretion of the permit drafter.

Monitoring for the parameters listed in s. NR 200.065, Wis. Adm. Code, Table 1 for a secondary industry should be completed during the next permit term or as part of the next permit application.

Following the October 29, 2019 Department's WET Program Guidance Document and best professional judgement, no WET testing is required.

The recommended limits meet the expression of limits requirements in ss. NR 106.07 and NR 205.065(7) and additional limits are not required.

Please consult the attached report for details regarding the above recommendations. If there are any questions or comments, please contact Sarah Luck (Sarah.Luck@wisconsin.gov) or Diane Figiel (Diane.Figiel@wisconsin.gov).

Attachments (3) – Narrative, Site Map, and Thermal Table

PREPARED BY: Sarah Luck _____ Date: July 16, 2020

Sarah Luck
Water Resources Engineer

E-cc: Thomas Meronek, Wastewater Engineer – SCR/Fitchburg
Tom Bauman, Regional Wastewater Supervisor – SCR/Fitchburg
Diane Figiel, Water Resources Engineer – WY/3

Attachment #1

Water Quality-Based Effluent Limitations for
Rushing Waters Fisheries, Inc.

WPDES Permit No. WI-0002488-10

Prepared by: Sarah Luck

PART 1 – BACKGROUND INFORMATION

Facility Description:
Rushing Waters Fisheries Inc., located near Palmyra Wisconsin, grows, harvests, and processes approximately 250,000 pounds of rainbow trout each year for restaurants and grocery stores. This facility consists of fifty-six spring fed ponds which flow by gravity to Outfall 001. Chemicals and antibiotics are not used in the rainbow trout production, although salt is infrequently added to reduce fish stress. Outfalls 004, 005, and 006 have been rerouted and no longer discharge.

Attachment #2 is a map of the area showing the approximate location of Outfall 001.

Existing Permit Limitations: The current permit, expiring on September 30, 2020, includes the following effluent limitations and monitoring requirements.

Parameter	Daily Maximum	Daily Minimum	Weekly Average	Monthly Average	Six-Month Average	Footnotes
Flow Rate						1
BOD_5						1
TSS						2
pH						1
Ammonia Nitrogen						1
Phosphorus Interim Final				 1.0 mg/L 0.225 mg/L	 0.075 mg/L	2,3

Footnotes:
1. Monitoring only.

2. Additional phosphorus and TSS mass limitations are required in accordance with the wasteload allocations specified in the Rock River TMDL.

Month	Monthly Ave TSS Effluent Limit (lbs/day)	Daily Max TSS Effluent Limit (lbs/day)	Monthly Ave Total P Effluent Limit (lbs/day)
Jan	167	400	1.94
Feb	184	440	2.09
March	167	400	2.00
April	151	360	2.18
May	126	300	2.22
June	109	260	2.33
July	92	220	2.02
Aug	143	340	1.90
Sept	176	420	1.73
Oct	167	400	1.74
Nov	176	420	1.80
Dec	167	400	1.87

3. This is an interim limit. The final WQBELs are 0.075 mg/L as six-month average and 0.225 mg/L as a monthly average in addition to the mass limits specified in the Rock River TMDL.

Receiving Water Information:

- Name: Unnamed Tributary to Spring Creek
- Classification used in accordance with chs. NR 102 and 104, Wis. Adm. Code: Warm water sport fish community, non-public water supply.
- Low Flows used in accordance with chs. NR 106 and 217, Wis. Adm. Code: The following 7-Q_{10} and 7-Q_2 values are estimates from DNR staff.
  7-Q_{10} = 0.034 cfs (cubic feet per second)
  7-Q_2 = 0.073 cfs
  Harmonic Mean Flow = 0.10 cfs using a drainage area of 0.31 mi^2
  The Harmonic Mean has been estimated based on average flow and the 7-Q_{10} using an equation from U.S. EPA's *Technical Support Document for Water Quality-Based Toxics Control* (March 1991, EPA/505/2-90-001, pgs. 88-89).
- Multiple dischargers: None.
- Impaired water status: The unnamed tributary to Spring Creek where Outfall 001 is located is not listed as impaired; however, Spring Creek, located approximately 0.75 mile downstream of the outfall, is listed as impaired for total phosphorus and total suspended solids and is within an EPA-approved TMDL.

Effluent Information:

- Flow Rates:
  Maximum annual average = 2.29 MGD (Million Gallons per Day)
  Peak daily flow = 2.9 MGD
  Peak 7-day average = 1.70 MGD
  Peak 30-day average = 1.70 MGD
  For reference, the actual average flow from October 2015 through March 2020 was 1.95 MGD.
- Acute dilution factor used in accordance with s. NR 106.06 (3) (c), Wis. Adm. Code: Not applicable for the pollutants evaluated in this memo.

- Water Source: Natural springs
- Additives: None.
- Effluent characterization: This facility is categorized as a secondary industry, specifically a concentrated aquatic animal production (CAAP), so the permit application required effluent sample analyses for chloride, nitrogen, and temperature; BOD_5, ammonia nitrogen, pH, total phosphorus, and total suspended solids were sampled during the permit term.

	Average Measurement	Average Mass Discharged
TSS	3.8 mg/L	57.5 lbs/day
Phosphorus	0.19 mg/L	2.45 lbs/day

*Results below the level of detection (LOD) were included as zeroes in calculation of average.

PART 2 – WATER QUALITY-BASED EFFLUENT LIMITATIONS FOR BOD_5, CHLORIDE, AND pH

WPDES permits for CAAP facilities used to contain technology-based effluent limits determined by Best Professional Judgment (BPJ). The parameters subject to BPJ included TSS, pH, and BOD_5. Currently, limits based upon BPJ have been removed and replaced with BMPs that are required pursuant to 40 CFR 451.11 and ss. 283.13(2) and 283.31(3)(d)2, Wis. Stats. The BMP plan must include components that are designed to minimize the discharge of solids and other pollutants from the facility. While the goal of applying the effluent limitations guidelines to all CAAP facilities in Wisconsin is to reduce the burdens associated with reporting and monitoring, the permit may continue to include a minimal level of monitoring in order to verify the narrative requirements are being met.

BOD_5 – BOD_5 monitoring and limit calculations for previous permit issuances were based on best professional judgment for effluent characteristics of hatcheries. The existing data from this facility suggests that they are able to consistently discharge effluent with BOD_5 lower than 7 mg/L. Based on effluent data from October 2015 through February 2020, presented below, there is no reasonable potential to exceed water quality-based effluent limits. Therefore, **no BOD_5 limits are required, but quarterly monitoring throughout the permit term is recommended** in accordance with the effluent limitation guidelines for CAAP facilities.

	BOD_5 mg/L
1-day P_{99}	6.2
4-day P_{99}	4.8
30-day P_{99}	4.0
Mean*	3.6
Std	0.91
Sample size	18
Range	2.2 - 5.2

Chloride – Only one value for the effluent concentration for chloride (sampled on 2/26/2020 and reported on the permit application) is available. The value of 26.3 mg/L is considerably below any calculated

WQBELs for chloride. Therefore, **no effluent limits or monitoring during the permit term are needed**.

pH – While the Department is required to set water quality-based effluent limitations with monitoring requirements to protect water quality of the receiving water body, monitoring data for pH from March 2016 through February 2020, presented below, suggests that this facility has been able to consistently discharge between 6.0 and 9.0 s.u. The value of 1.7 s.u. recorded on 10/30/2015 is believed to have been a data entry error and was not considered in the evaluation. BMPs have been implemented that remove the reasonable potential of pH results outside the daily minimum limit of 6.0 s.u. and daily maximum limit of 9.0 s.u. Therefore, no **limits for pH are required, but quarterly monitoring throughout the permit term is recommended** in accordance with the effluent limitation guidelines for CAAP facilities.

	pH s.u.
1-day P_{99}	7.51
4-day P_{99}	7.49
30-day P_{99}	7.48
Mean*	7.47
Std	0.02
Sample size	17
Range	7.44 - 7.50

PART 3 – WATER QUALITY-BASED EFFLUENT LIMITATIONS FOR AMMONIA NITROGEN

The State of Wisconsin promulgated revised water quality standards for ammonia nitrogen in ch. NR 105, Wis. Adm. Code, effective March 1, 2004 which includes criteria based on both acute and chronic toxicity to aquatic life. Four samples for ammonia nitrogen were collected at Outfall 002 from 09/25/2012-10/4/2012, shown below.

	Ammonia Nitrogen mg/L
1-day P_{99}	2.3
4-day P_{99}	1.3
30-day P_{99}	0.87
Mean	0.66
Std	0.45
Sample size	18
Range	0.30 – 2.0

These results are well below the lowest limits that would be calculated for ammonia. There is no reasonable potential to exceed ammonia limits so **no limits for ammonia nitrogen are recommended** in the reissued permit, but **monitoring is recommended to continue.**

Attachment #1

PART 4 – PHOSPHORUS

Technology Based Phosphorus Limit

Subchapter II of Chapter NR 217, Wis. Adm. Code, requires industries that discharge greater than 60 pounds of Total Phosphorus per month to comply with a 12-month rolling average limit of 1.0 mg/L, or an approved alternative concentration limit. Because Rushing Waters Fisheries, Inc. currently has a limit of 1.0 mg/L, this limit should be included in the reissued permit. This limit remains applicable unless a more stringent water quality-based concentration limit is given.

In addition, the need for a water quality-based effluent limit for phosphorus must be considered.

TMDL Limits – Phosphorus

Revisions to the administrative rules for phosphorus discharges took effect on December 1, 2010. These rule revisions include additions to ch. NR 102 (s. NR 102.05), which establish phosphorus standards for surface waters. Revisions to ch. NR 217 (s. NR 217, Subchapter III) establish procedures for determining water quality-based effluent limits for phosphorus based on the applicable standards in ch. NR 102.

The Department has developed a TMDL for the Upper and Lower Rock River Basins. The US EPA approved the Rock River TMDL on September 28, 2011. The document along with the referenced appendices can be found at:
http://dnr.wi.gov/topic/TMDLs/RockRiver/Final_Rock_River_TMDL_Report_with_Tables.pdf

The monthly average total phosphorus effluent limits in lbs/day are calculated based on the monthly phosphorus wasteload allocation (WLA) given in pounds per month as suggested in the *TMDL Development and Implementation Guidance: Integrating the WPDES and Impaired Waters Programs* dated April 15, 2013. The WLA for this facility is found in the *Total Maximum Daily Loads for Total Phosphorus and Total Suspended Solids in the Rock River Basin* report dated July 2011. **Monthly average total phosphorus mass effluent limits in the following table are recommended:**

Month	Monthly Total P WLA[1] (lbs/month)	Days Per Month	Monthly Ave Total P Effluent Limit[2] (lbs/day)
Jan	60.18	31	**1.94**
Feb	58.58	28	**2.09**
March	61.87	31	**2.00**
April	65.40	30	**2.18**
May	68.74	31	**2.22**
June	69.79	30	**2.33**
July	62.65	31	**2.02**
Aug	58.89	31	**1.90**
Sept	51.84	30	**1.73**
Oct	53.96	31	**1.74**
Nov	53.97	30	**1.80**
Dec	58.11	31	**1.87**

Footnotes:
1- Rock River TMDL Appendix P. Monthly Total Phosphorus Allocations by Wastewater Treatment Facility (p. 147)
2- Monthly Average Total P Effluent Limit (lbs/day) = Monthly Total P WLA (lbs/month) ÷ days per month

Water Quality-Based Effluent Limits – Phosphorus
Section NR 217.16, Wis. Adm. Code, states that the Department may include a TMDL-derived water quality-based effluent limit for phosphorus in addition to, or in lieu of, a s. NR 217.13 WQBEL in a WPDES permit. Because the Rock River Basin TMDL was developed to only protect and improve the water quality of phosphorus impaired waters within the basin, the need for s. NR 217.13 WQBELs must also be evaluated to address local water quality concerns. Phosphorus data is currently not available in the Unnamed Tributary to Spring Creek. However, Spring Creek, located approximately 0.75 mile downstream of the outfall, is listed as impaired for total phosphorus, so the ambient concentration of phosphorus is believed to exceed the applicable criteria of 0.075 mg/L. Therefore, the calculated phosphorus limit is 0.075 mg/L as a six-month average.

Reasonable Potential Determination
The calculated WQBEL of 0.075 mg/L is less than the current technology-based limit of 1.0 mg/L, so the WQBEL must be included in the permit per s. NR 217.15(2), Wis. Adm. Code.

In accordance with s. NR 217.15(2), Wis. Adm. Code, there is reasonable potential for the discharge to cause or contribute to an exceedance of the water quality criteria. The data suggest that a compliance schedule will be necessary for the facility to meet the given phosphorus limits.

Limit Expression
According to s. NR 217.14 (2), Wis. Adm. Code, because the calculated WQBEL is less than or equal to 0.3 mg/L, the effluent limit of 0.075 mg/L may be expressed as a six-month average. If a concentration limitation expressed as a six-month average is included in the permit, a monthly average concentration limitation of 0.225 mg/L, equal to three times the WQBEL calculated under s. NR 217.13, Wis. Adm. Code shall also be included in the permit. The six-month average should be averaged during the months of May – October and November – April.

Effluent Data
The following tables summarizes effluent total phosphorus monitoring data from October 2015 through April 2020.

	Phosphorus mg/L
1-day P_{99}	0.77
4-day P_{99}	0.43
30-day P_{99}	0.26
Mean	0.19
Std	0.15
Sample size	45
Range	0.053 - 0.65

	Phosphorus lbs/day											
	Jan	**Feb**	**March**	**April**	**May**	**June**	**July**	**August**	**Sept**	**Oct**	**Nov**	**Dec**
TMDL Limit	*1.94*	*2.09*	*2.00*	*2.18*	*2.22*	*2.33*	*2.02*	*1.90*	*1.73*	*1.74*	*1.80*	*1.87*
Mean	**3.7**	**2.9**	1.9	2.0	1.7	**2.73**	1.64	1.69	1.70	**2.29**	**3.0**	**3.53**
Sample size	5	5	5	4	4	4	4	4	4	5	5	5
Range	0.6 – 3.96	0 – 9.6	0.76 – 4.11	0.81 – 3.0	0 – 3.0	1.25 – 4.02	0 – 2.62	0 – 2.50	1.04 – 3.32	0.87 – 4.82	0 – 8.5	0.99 – 9.48

There was not enough data to calculate the 30-day P_{99} in order to compare it to the monthly TMDL mass limits. However, when comparing the mean of the reported effluent mass data to the monthly average TMDL limits, the mass limits are exceeded during the months of January, February, June, October, November, and December (highlighted above) and are met all other months.

Phosphorus Conclusion
The s. NR 217.13 calculated concentration limits of 0.075 mg/L as a six-month average and 0.225 mg/L as a monthly average and the TMDL-derived mass limits are recommended for Rushing Waters Fisheries, Inc.

Multi-Discharge Variance Interim Limit
Rushing Waters Fisheries, Inc. has applied for the phosphorus multi-discharger variance (MDV). Conditions of the phosphorus MDV require the facility to comply with an interim phosphorus limit in lieu of meeting the final WQBEL. Section 283.16 (6) 1, Wis. Stats. requires an interim limit of 0.8 mg/L as a monthly average for the first permit term under the MDV. However, if 0.8 mg/L does not represent the highest attainable condition, a more stringent limit should be met by the end of the permit term pursuant s. 283.16 (7), Wis. Stats. Since Rushing Waters Fisheries, Inc. has shown the ability to achieve below 0.8 mg/L, a more stringent limit is required. The **recommended interim limit is 0.65 mg/L as a monthly average** which represents the highest monthly average from October 2015 through April 2020.

PART 5 –TOTAL SUSPENDED SOLIDS (TSS)

The Rock River TMDL also has wasteload allocations (WLA) for total suspended solids (TSS). For an industrial discharge, the limits for TSS must be expressed as daily maximums and monthly averages.

Monthly average and daily maximum mass effluent limitations should be included in the permit according to the tables below. For reference, the mass limits shown are equivalent to concentrations ranging from 4.8 – 9.6 mg/L as a monthly average and 11.5 – 23.0 mg/L as a daily maximum, at the flow rate of 2.29 MGD.

Attachment #1

Total Suspended Solids Effluent Limitations

Month	Monthly TSS WLA[1] (tons/month)	Days Per Month	Monthly Ave TSS Effluent Limit[2] (lbs/day)
Jan	2.59	31	**167**
Feb	2.58	28	**184**
March	2.59	31	**167**
April	2.26	30	**151**
May	1.95	31	**126**
June	1.63	30	**109**
July	1.43	31	**92**
Aug	2.21	31	**143**
Sept	2.64	30	**176**
Oct	2.59	31	**167**
Nov	2.64	30	**176**
Dec	2.59	31	**167**

Month	Daily TSS WLA[3] (tons/day)	Daily Max TSS Effluent Limit[4] (lbs/day)
Jan	0.20	**400**
Feb	0.22	**440**
March	0.20	**400**
April	0.18	**360**
May	0.15	**300**
June	0.13	**260**
July	0.11	**220**
Aug	0.17	**340**
Sept	0.21	**420**
Oct	0.20	**400**
Nov	0.21	**420**
Dec	0.20	**400**

Footnotes:
1- Rock River TMDL Appendix Q. Monthly Total Suspended Solids Allocations by Wastewater Treatment Facility (p. 149)
2- Monthly average TSS effluent limit (lbs/day) = maximum monthly TSS WLA (tons/month) ÷ days per month x 2,000 lbs/ton
3- Rock River TMDL Appendix S. Daily Total Suspended Solids Allocations by Wastewater Treatment Facility (p. 153)
4- Daily maximum TSS effluent limit (lbs/day) = daily TSS WLA (tons/month) x 2,000 lbs/ton

Limits based on a WLA should be given in a permit regardless of reasonable potential. However, for informational purposes, the following table lists the statistics for TSS discharge reported from October 2015 through May 2020 as both a concentration and a mass.

	TSS mg/L	TSS lbs/day
1-day P_{99}	10	152
4-day P_{99}	6.4	97.8
30-day P_{99}	4.6	70.4
Mean	3.8	57.5
Std	1.8	28.1
Sample Size	18	17
Range	1.6 - 7.8	22.7 - 143

PART 6 – WATER QUALITY-BASED EFFLUENT LIMITATIONS FOR THERMAL

Surface water quality standards for temperature took effect on October 1, 2010. These regulations are detailed in chs. NR 102 (Subchapter II – Water Quality Standards for Temperature) and NR 106 (Subchapter V – Effluent Limitations for Temperature) of the Wisconsin Administrative Code. Daily maximum and weekly average temperature criteria are available for the 12 different months of the year depending on the receiving water classification.

In accordance with s. NR 106.53(2)(b), Wis. Adm. Code, the highest daily maximum flow rate for a calendar month is used to determine the acute (daily maximum) effluent limitation. In accordance with s. NR 106.53(2)(c), Wis. Adm. Code, the highest 7-day rolling average flow rate for a calendar month is used to determine the sub-lethal (weekly average) effluent limitation. These values were based off actual flow reported from 2014.

The table below summarizes the maximum temperatures reported during monitoring in 2011.

Month	Representative Highest Monthly Effluent Temperature		Calculated Effluent Limit	
	Weekly Maximum (°F)	Daily Maximum (°F)	Weekly Average Effluent Limitation (°F)	Daily Maximum Effluent Limitation (°F)
JAN		50	49	77
FEB			50	77
MAR	53	53	**52**	78
APR	54	54	55	79
MAY		53	65	82
JUN		54	76	84
JUL	57	57	81	85
AUG	55	55	81	84
SEP		55	73	82
OCT	52	52	61	80
NOV		50	49	77
DEC	50	50	**49**	77

Data was not collected during the last permit term so data from the previous term was used and is still considered to be representative. Data was not available for the month of February. It should be noted that only one result per month was reported as an effluent daily maximum temperature and compared to the weekly average limits. Since there was not enough data to take weekly averages, the daily maximum was used to determine the need for weekly average limits, so it is likely that the weekly averages are actually lower and would not trigger temperature limits. Additionally, since this is a rainbow trout hatchery, water temperatures must be maintained for cold water species. Therefore, warm water limitations should be able to be met under normal operating conditions. **No thermal limits are required. Monitoring is at discretion of the permit drafter.** The thermal table from the previous permit term is in Attachment #3.

PART 7 – WHOLE EFFLUENT TOXICITY (WET)

WET testing is used to measure, predict, and control the discharge of toxic materials that may be harmful to aquatic life. In WET tests, organisms are exposed to a series of effluent concentrations for a given time and effects are recorded. Decisions below related to the selection of representative data and the need for WET limits were made according to ss. NR 106.08 and 106.09, Wis. Adm. Code. WET monitoring frequency

and toxicity reduction evaluation (TRE) recommendations were made using the best professional judgment of staff familiar with the discharge after consideration of the guidance in the WET Program Guidance Document (October 29, 2019).

- Acute tests predict the concentration that causes lethality of aquatic organisms during a 48 to 96-hour exposure. To assure that a discharge is not acutely toxic to organisms in the receiving water, WET tests must produce a statistically valid LC_{50} (Lethal Concentration to 50% of the test organisms) greater than 100% effluent, according to s. NR 106.09 (2) (b), Wis. Adm Code.

- Chronic tests predict the concentration that interferes with the growth or reproduction of test organisms during a seven-day exposure. To assure that a discharge is not chronically toxic to organisms in the receiving water, WET tests must produce a statistically valid IC_{25} (Inhibition Concentration) greater than the instream waste concentration (IWC), according to s. NR 106.09 (3) (b), Wis. Adm Code. The IWC is an estimate of the proportion of effluent to total volume of water (receiving water + effluent). The IWC of 100% shown in the WET Checklist summary below was calculated according to the following equation, as specified in s. NR 106.03(6), Wis. Adm Code:

$$IWC\ (as\ \%) = Q_e \div \{(1 - f)\ Q_e + Q_s\} \times 100$$

Where:

Q_e = annual average flow = 2.29 MGD = 3.54 cfs
f = fraction of the Q_e withdrawn from the receiving water = 0
Q_s = ¼ of the 7-Q_{10} = 0.034 cfs ÷ 4 = 0.0085 cfs

The WET Checklist was developed to help DNR staff make recommendations regarding WET limits, monitoring, and other related permit conditions. The Checklist indicates whether acute and chronic WET limits are needed, based on requirements specified in s. NR 106.08, Wis. Adm. Code. The Checklist steps the user through a series of questions, assesses points based on the potential for effluent toxicity, and suggests monitoring frequencies based on points accumulated during the Checklist analysis. As toxicity potential increases, more points accumulate, and more monitoring is recommended to ensure that toxicity is not occurring. A summary of the WET Checklist analysis completed for this permittee is shown in the table below. Staff recommendations based on best professional judgment are provided below the summary table. For guidance related to reasonable potential and the WET Checklist, see Chapter 1.3 of the WET Guidance Document: http://dnr.wi.gov/topic/wastewater/WETguidance.html.

WET Checklist Summary

	Acute	Chronic
AMZ/IWC	Not Applicable. **0 Points**	IWC = 100% **15 Points**
Historical Data	No data available. **5 Points**	No data available. **5 Points**
Effluent Variability	Little variability, no violations or upsets, consistent operations. **0 Points**	Same as Acute. **0 Points**
Receiving Water Classification	WWSF **5 Points**	Same as Acute. **5 Points**
Chemical-Specific Data	No limits based on ATC; ammonia and chloride detected. Additional Compounds of Concern: None. **2 Points**	No limits based on CTC; ammonia and chloride detected. Additional Compounds of Concern: None. **2 Points**

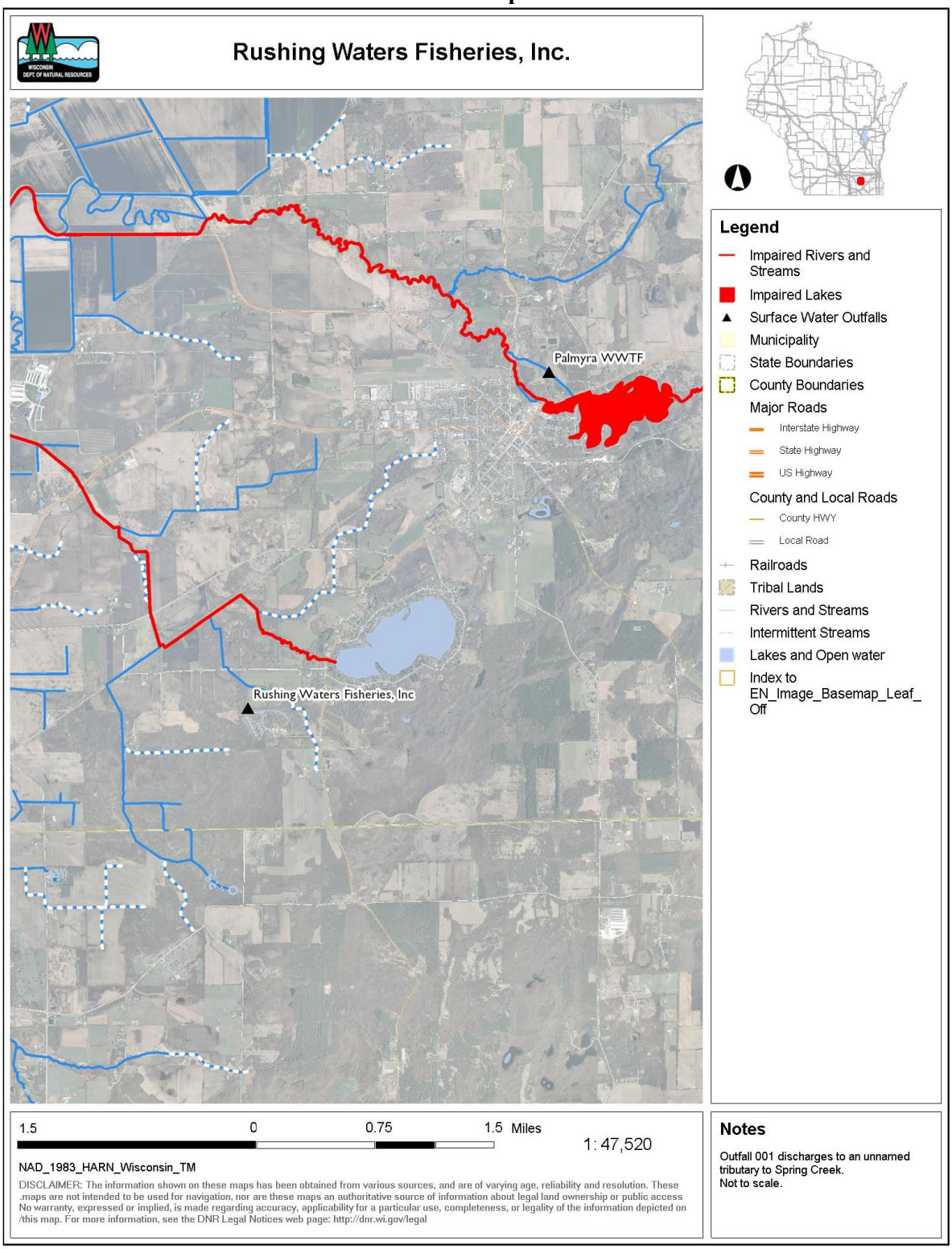
Attachment #1

	Acute	Chronic
Additives	No additives used. **0 Points**	No additives used. **0 Points**
Discharge Category	Fish Hatchery **0 Points**	Same as Acute. **0 Points**
Wastewater Treatment	Settling ponds prior to discharge for TSS. **8 Points**	Same as Acute. **8 Points**
Downstream Impacts	No impacts known. **0 Points**	Same as Acute. **0 Points**
Total Checklist Points:	**20 Points**	**35 Points**
Recommended Monitoring Frequency (from Checklist):	2 tests during permit term	1x yearly
Limit Required?	No	No
TRE Recommended? (from Checklist)	No	No

It is important to note that the WET checklist was designed with more "typical" municipal and industrial dischargers in mind. Although points are added for primary treatment, the facility does not need anything beyond that which should be taken into consideration. Furthermore, the facility did not have any chemical detects at levels of concern (for those toxics tested) and does not use any additives. Therefore, **no WET testing is recommended** because the risk for toxicity is considered to be low.

Attachment #2

Site Map



Attachment #3

Thermal Table from the WQBEL Memo Dated April 4, 2014

Temperature limits for receiving waters with unidirectional flow												
(calculation using default ambient temperature data)												
Facility:		Rushing Water		**Data Range**	**7Q10 or 4Q3:**	0.034	cfs					
Outfall(s):		001	**Start:**	10/03/11	**Dilution:**	100%						
Date Prepared:		1-Mar-14	**End:**	01/31/14	**f:**	0						
Design Flow (Qe):		1.7	mgd		**Stream type:**	Small warm water sport or forage fish community						
	Region:				**Qs:Qe ratio:**	0.0	:1					
					Calculation Needed?	**YES**						
	Water Quality Criteria			Receiving Water Flow Rate (Qs)	Representative Highest Effluent Flow Rate (Qe)		Representative Highest Monthly Effluent Temperature		99th Percentile of Representative Data		**Calculated Effluent Limits**	
Month	Ta (default)	Sub-Lethal WQC	Acute WQC		7-day Rolling Ave (Qesl)	Daily Max Flow Rate (Qea)	Weekly Ave	Daily Max	Weekly Ave	Daily Max*	**Weekly Ave Limit**	**Daily Max Limit**
	(°F)	(°F)	(°F)	(cfs)	(mgd)	(mgd)	(°F)	(°F)	(°F)	(°F)	(°F)	(°F)
JAN	33	49	76	0.034	1.700	1.700	0	50	0	0	49	77
FEB	34	50	76	0.034	1.700	1.700	0	0	0	0	50	77
MAR	38	52	77	0.034	1.700	1.700	**53**	53	0	0	**52**	78
APR	48	55	79	0.034	1.700	1.700	54	54	0	0	55	79
MAY	58	65	82	0.034	1.700	1.700	0	53	0	0	65	82
JUN	66	76	84	0.034	1.700	1.700	0	54	0	0	76	84
JUL	69	81	85	0.034	1.700	1.700	57	57	0	0	81	85
AUG	67	81	84	0.034	1.700	1.700	55	55	0	0	81	84
SEP	60	73	82	0.034	1.700	1.700	0	55	0	0	73	82
OCT	50	61	80	0.034	1.700	1.700	52	52	0	0	61	80
NOV	40	49	77	0.034	1.700	1.700	0	50	0	0	49	77
DEC	35	49	76	0.034	1.700	1.700	**50**	50	0	0	**49**	77